



# Biological Integrated Detection System (BIDS)



## BIDS Components:

- Vehicle (M1097 HMMWV)
- Shelter (S-788)
- Generator (PU-801)
- Bio Detection Suite

**Description:** The BIDS consists of a shelter (S-788 Lightweight Multipurpose Shelter) mounted on a dedicated vehicle (M1097 Heavy High Mobility Multipurpose Wheeled Vehicle (HMMWV)) and equipped with a biological detection suite

employing complementary technologies to detect large area biological attacks. The system includes a trailer-mounted 15-kw generator (PU-801) to provide electrical power. The BIDS Biological Detection Suite links aerodynamic particle sizing, bioluminescence/fluorescence, flow cytometry, mass spectrometry, and immunoassay technologies in a complementary, layered manner to increase detection confidence. To fill the urgent need for a biological detection system, yet field mature technologies, the BIDS has an evolutionary acquisition strategy. Initially, a non-developmental item (NDI) BIDS (M31), consisting of primarily off-the-shelf instrumentation, provided a limited manual detection/identification capability. This was being followed by a pre-planned product improvement (P3I) BIDS (M31A1) with an expanded and semi-automated detection/identification capability. Current integration of the Joint Biological Point Detection System (JBPDS) will provide a fully automated, objective BIDS (M31E2) with broad-spectrum biological detection/identification capability.

**Use:** The number of countries pursuing an offensive biological warfare program continues to increase. The priority of the U.S. Army's Biological Defense Program is to limit the effects of large area biological warfare attacks. As a U.S. Army corps level asset, the BIDS will mitigate the effects of large area biological warfare attacks during all phases of a campaign. Individual BIDS systems are strategically employed throughout the Corps area to create a sensor array/network. The BIDS network will be used for warning and confirming that a biological attack has occurred, will provide presumptive identification of the biological agent being used, and will produce a safely configured sample for later laboratory analysis. The BIDS is C130 aircraft transportable, has roll-on/roll-off capability, and can operate in a dismounted role separate from its dedicated Heavy HMMWV.

**Status:** The BIDS was developed and produced at the U.S. Army Soldier and Biological Chemical Command, Aberdeen Proving Ground, Maryland. The NDI BIDS was fielded during FY96 and FY97. The P3I BIDS fielding was completed in February 2000.



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